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Forest & Shade Tree - Insect & Disease Conditions for Maine
August 18, 2010

Summer Interns - Our summer interns are just finishing their time with us. Amanda Sawyer, Helen Birk, and Rachael Mack worked hard this summer on hemlock woolly adelgid, beech bark disease, and biosurveillance surveys, as well as performing lab work and invasive insect outreach projects in campgrounds. They each demonstrated a great work ethic, learned quickly, and endured many hot days of summer with good cheer. It has been a real pleasure to work with them all. Thanks for all your good work. Good luck in the coming year!

Beetle Busting at Sebago Lake - The Maine Forest Service and the Maine Department of Agriculture worked with the staff at Sebago Lake State Park to carry out a survey for Asian longhorned beetle and emerald ash borer on August 14th. Volunteers helped with the survey and the outreach activities. The day-long event also included activities for children, and other outreach and educational activities.

We talked to hundreds of campers and day-users about invasive insects and how they can be moved in firewood. It may be inevitable that these invasive insects will come to Maine. However, the longer we can delay that day, the more time our towns and cities will have to prepare, as we develop more and better management tools to deal with these important pests.

Hymenoptera Blitz at Acadia National Park – The eighth insect blitz at Schoodic Point was held the weekend of July 30 – August 2, 2010. The Maine Forest Service has assisted at these blitzes as a way of furthering our understanding of the insects that inhabit the Maine forests. We provide technical support and equipment, volunteers do the collecting and identifications and we all benefit from the increase in knowledge. This year seventy people, forty from Maine and one from as far away as Wyoming, helped with the insect survey. Both professionals and amateurs volunteer their time. The blitz focused on ants, bees and wasps. Schoodic Point is not a very rich habitat, especially for bees, as it is heavily wooded with primarily spruce and fir. But it is good for those of us interested in the forest fauna.

The Maine Entomological Society is also a major player in the blitzes helping with organization and providing many of the volunteers. The University of Maine is another supporter. This year three professors, their graduate students and a technician participated as this particular group of insects aligns with some of their projects. The United States Geological Survey is heading up a bee survey project in national parks and used the blitz as a testing ground for their method as well as providing taxonomic expertise in identifying bees. We learned a lot and so did they. Dr. Don Chandler from the University of New Hampshire is another long time supporter of the blitzes. He has worked for years on the fauna of forest litter and the role these insects play in the forest. His collaboration and insight is invaluable for us in Maine.

INSECTS

Biosurveillance for Emerald Ash Borer (EAB) - The active season for *Cerceris fumipennis* is winding down. Although some colonies may still be active, biosurveillance is over at most colonies. We had two new volunteers adopt colonies in Whitefield and Union. We thank them and all our returning volunteers for their assistance in monitoring for EAB. No EAB was detected this year in Maine.

***Fall Webworm** (*Hyphantria cunea*) – The webs made by fall webworm larva are apparent now especially in southwestern Maine. The further north you go the fewer webs you see. Fall webworms are particularly fond of ash, apple, cherry and birch but you can find them on other hardwoods as well. The larval feeding on the leaves does little damage to the health of the tree and is primarily an esthetic problem.

***Introduced Pine Sawfly** (*Diprion similis*) – These black, yellow and green marbled larvae can be found feeding on white pine needles now. The larvae will feed into the fall and then spin papery brown cocoons on any nearby substrate. They will spend the winter in the cocoons and emerge as adult sawflies next summer. If you have only a few trees or the infestation is light, hand-pick the larvae and drop them in a can of soapy water. Grandchildren are a great labor source for this activity. Populations are low at this time and usually are controlled by larval parasites.

*** Psocids or Barklice** (primarily *Cerastipsocus venosus***) -** We regularly get calls from people worried about psocids on the bark of their trees. These tiny, soft-bodied creatures stand out because they appear in large groups on the bark of the tree, feeding very close together. If you disturb them then they all move together in a pack. The adults have brown and clear wings held roof-like over their dark colored bodies and the nymphs have horizontal stripes like prison suits. Psocids feed on fungi and lichens on the bark of trees and cause no damage to the trees.

DISEASES AND INJURIES

Fusicoccum **canker of Balsam Fir** (*Fusicoccum abietinum*) – This minor canker disease, also called "red flag" of balsam fir, appears frequently in late summer throughout the state. The damage this disease causes is primarily only an aesthetic problem on ornamentals and Christmas trees, but because the red flags are quite noticeable, homeowners become concerned. Symptoms include reddening of the needles on the outer branches and twigs, and a dieback of the branch tips. The canker itself appears as a slight and rather subtle constriction in the branch at the terminal end of the dieback, which is usually only six inches to a foot from the tip of the branch. Be aware that similar symptoms can be produced by other causes such as chewing by adult beetles of pine sawyers (*Monochamus* spp.) or by mechanical injuries from hail. Simple clipping of the dead tips is the only control recommended or needed.

Cytospora Canker of Concolor Fir (*Cytospora abietis*) – Several occurrences of *Cytospora* canker on ornamental Concolor firs (*Abies concolor*) have been observed over the summer. *Cytospora* is generally a weak parasite, and becomes established on trees that have been stressed from drought, sub-optimal site or soil conditions, or mechanical injuries. Symptoms are similar to the *Cytospora* disease of spruces (caused by *C. kunzei*) and appear as branch dieback starting from the lower areas of the crown, and slowly spreading upwards. Affected branches exude pitch, which is seen as white streaks along the branches and sometimes the main stem. Pitch of older infections often darkens to black. Splits, lesions, and seams along the branch axis may also be

evident. Removing the infected branches is the only effective control, but this will often decrease the ornamental appeal of yard specimens. Planting Concolor fir on appropriate loamy, moist but well-drained sites, and prevention of mechanical injuries remain the best preventive practices.

Fir-Fern Rust (*Uredinopsis* spp. and *Milesina* spp.) – There are several species of rust fungi that can infect balsam fir, but the fir-fern rusts are most common. Several species of the fir-fern rusts may have more than one fir host, but each usually has a specific fern host. The disease rarely severely damages or kills trees, but can be of considerable importance in Christmas tree plantations. While there are registered fungicides that can help reduce needle infections, removal of the fern hosts within and near Christmas tree plantations remains the more suitable option. Controlling ferns now (late summer through early fall) with herbicides can greatly reduce disease incidence in the coming year.

Natural Branch Shedding of Northern White Cedar and Hemlock – Some early branchlet shedding has already been noticed on hemlock in north-central Maine, a sure sign that fall is fast-approaching. Be aware that several tree species, including northern white cedar (*Thuja occidentalis*), eastern hemlock (*Tsuga canadensis*), and most species of poplar (*Populus* spp.) shed small branchlets, a process called cladoptosis, as part of natural growth and development. The branchlet-shedding process is similar to leaf shedding, and occurs throughout the fall season. Timing and extent of the shedding on any particular tree can vary with location and year.

Paper Birch Decline – Early leaf coloration and some premature leaf drop has been noted throughout central Maine in the past week or so. While not alarming, it indicates that trees in many areas are becoming water-stressed. Last year, paper birch in higher elevations in the western mountain regions experienced some widespread leaf anthracnose damage. This year birch anthracnose was neither severe nor widespread. There has been a report of some birch decline in these western areas, a likely result of multiple causes including leaf anthracnose, birch leaf miner, and damage from ice storms that have occurred with more or less regular frequency over several previous years.
